

LPDG705A
LPDG705AE
LPDG708A
LPDG708AE

5-/8-Port 10/100/Gigabit Switch with 1 PoE PD Port

Expand the number of Gigabit Ethernet ports on your network without the need for a power outlet.

Includes a built-in IEEE 802.3af Power Device (PD).
Unit is palm-sized with metal case.
Auto-negotiates port speed.
Includes auto-MDI/MDI-X function for every port.



Customer Support Information

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500)
FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746
Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: www.blackbox.com • E-mail: info@blackbox.com

Federal Communications Commission and Industry Canada Radio Frequency Interference Statements

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause inter-ference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emis-sion from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

CE Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures to correct the interference.

Normas Oficiales Mexicanas (NOM) Electrical Safety Statement INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
    A: El cable de poder o el contacto ha sido dañado; u
    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o
    C: El aparato ha sido expuesto a la lluvia; o
    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
    E: El aparato ha sido tirado o su cubierta ha sido dañada.

Trademarks Used in this Manual

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1. Introduction

These switches provide (5) or (8) 10-/100-/1000-Mbps ports. They were designed for easy installation and high performance in environments where traffic on the network and the number of users increases continuously.

Both switches have a built in Power Device (PD) feature on port 1. Using this port, you can power the switch from a PSE port over ordinary CAT5 cables.

The small compact unit was specifically designed for small to medium workgroups. Install it where space is limited for smooth network migration and an easy upgrade to network capacity.

2. Key Features

- 5-/8-Port 10/100/1000 Mbps (Auto-negotiation) Switch
- Ports 5/8 have a built in IEEE 802.3af Power Device (PD) feature that allows the switch to get power from a PSE device over ordinary CAT5 cables.
- Unit is palm-sized with metal case
- Auto-detects full-/half-duplex modes for any port
- Offers dedicated full-duplex 2000-Mbps bandwidth
- Supports Store-and-Forward switching methods
- Includes IEEE 802.3x flow control for full-duplex and back-pressure flow control for half-duplex
- Provides non-blocking and non-head-of-line blocking full wire speed forwarding
- Supports Auto-MDI/MDI-X function for any port

3. Package Contents

Your package should include the following items. If anything is missing or damaged, please contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- (1) Gigabit Ethernet Switch
- (1) Power Adapter: 120 VAC, 60 Hz U.S. plug for LPDG705A and LPDG708A; 100-240 VAC, 50–60 Hz, 0.4 A universal power supply with (2) power clips: (1) EU, (1) UK for LPDG705AE and LPDG708AE
- (1) User’s Manual

4. Front & Rear Panel

Front Panel

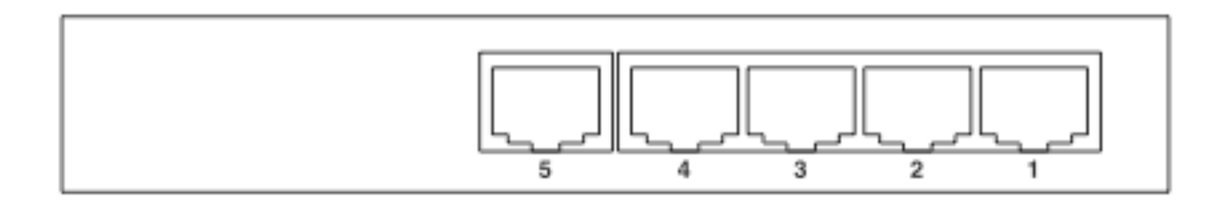


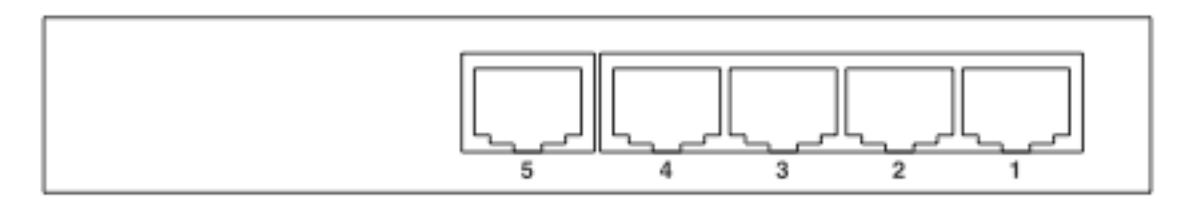
Figure 4-1. Front panel of the LPDG708A.

NOTE: The front panel of the LPDG705A is similar to the LPDG708A, except that is has six LEDs (1 power, 5 Link/Act) instead of eight LEDs. LED 5 on LPDG705A and LED 8 on the LPDG708A indicate the Link/Act status of the PoE port.

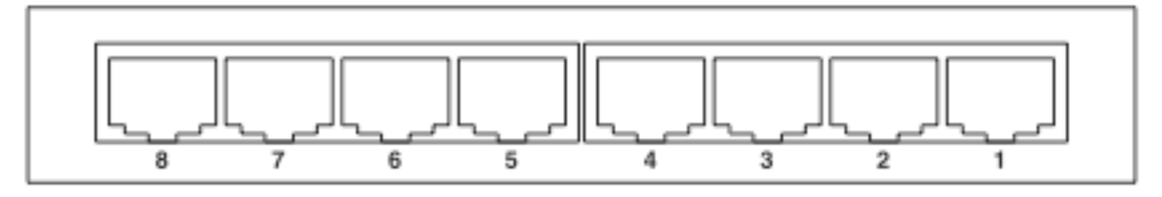
LED Indicators on the switch

LED	Status	Description
Power	On	Power is on.
	Off	Power is off.
LINK/ACT	On	Port is for connection.
	Off	No connection.
	Flashing	Data is transmitting or receiving

Rear Panel (Connections)



Port 5 on the LPDG705A also functions as a PoE port.



Port 8 on the LPDG708A also functions as a PoE port.

Figure 4-2. Back panels of the LPDG705A and LPDG708A.

5. Connection

TP Port and Cable Installation:

1. The switch's TP ports support MDI-/MDI-X auto-crossover, so you can use either straight through or cross over cables.

2. Use CAT5 or higher grade RJ-45 TP cable for 10/100 applications and CAT5e grade RJ-45 TP cable or above for gigabit Ethernet applications, to connect a TP port of the switch to an Ethernet device such as a workstation or a server.

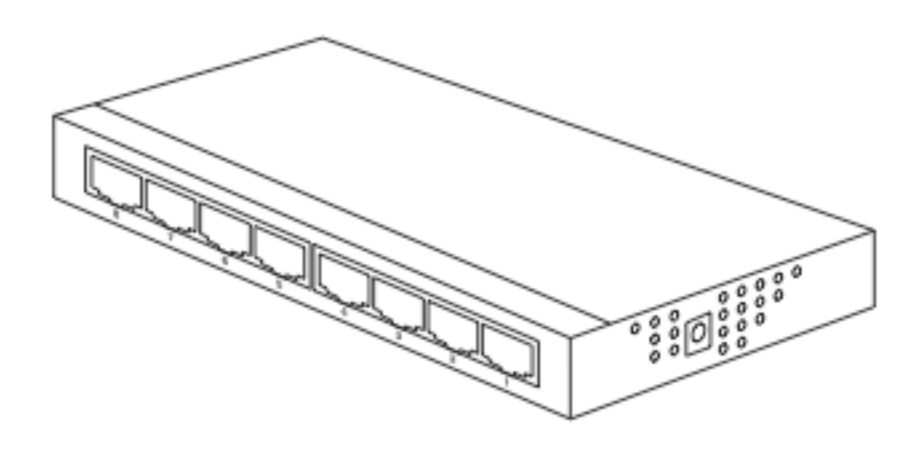
3. Repeat the above steps, as needed, for each RJ-45 port to be connected to a 10-/100-/1000-Mbps TP device.

For successful installation and good performance, follow the cabling requirements. Using cables with a lower specification than recommended will negatively impact network performance. For Fast Ethernet TP network connection, you must use CAT5 or higher cables that are up to 328 feet (100 meters) long. For Gigabit TP network connections, you must use CAT5e or higher cables that are up to 328 feet (100 meters) long.

Power On:

Power this switch from PoE PSE (Power Source Equipment) or from external DC power adapter. When connecting a PoE PSE, make sure that your PSE complies with 802.3af or 48 VDC 15.4 W.

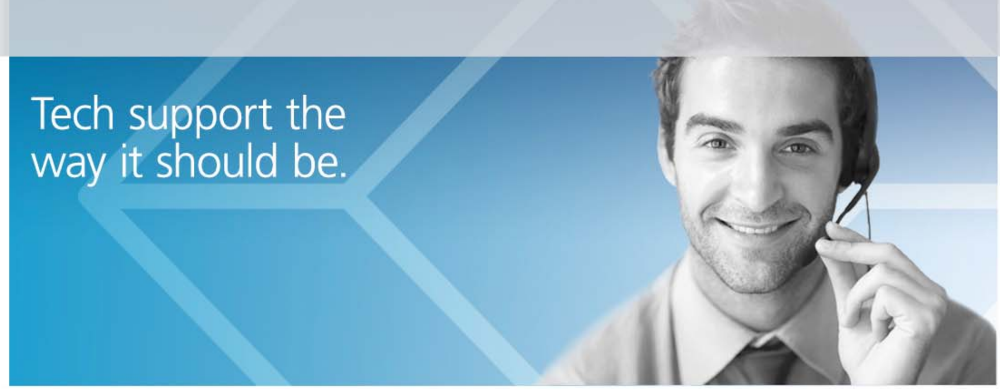
After the power is on, all LED indicators will light immediately. Then all LEDs will turn off, except for the power LED, which stays on.



6. Technical Specifications

Standards	IEEE 802.3af IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT IEEE 802.3x Flow control
Features	Number of Ports: LPDG705A: (5) 10-/100-/1000BASE-T(X) with 1 PD (PoE) Port LPDG708A: (8) 10-/100-/1000BASE-T(X) with 1 PD (PoE) Port MAC Address: 2K Buffer Memory: 1M bits Method: Store and Forward
Filtering/ Forwarding Rates	1000-Mbps port : 1,488,000 pps 100-Mbps port : 148,800pps 10-Mbps: 14,880pps
Transmission Media	10BASE-T CAT3, 4, 5 UTP/STP 100BASE-TX CAT5, 5e, 6 UTP/STP 1000BASE-T CAT5e, 6 UTP/STP
LED Indicators	Per Port: LINK/ACT Per Unit: Power
Power Supply	LPDG705A, LPDG708A: Input: 120 VAC, 60 Hz with U.S. plug, Output: 5 VDC, 2 A, 10 W max.; LPDG705AE, LPDG708AE: Input: 100-240 VAC, 50–60 Hz, 0.4 A, universal power supply with (2) power clips: (1) EU, (1) UK, Output: 5 VDC, 2 A, 10 W max.
Power Consumption	6 Watts (Maximum)
Dimensions	0.9"H x 3"W x 5.2"D (2.4 x 7.7 x 13 cm)
Weight	0.28 kg
Operating Temperature	32 to 104° F(0 to 40° C)
Storage Temperature	-4 to 194° F (-20 to 90 C)
Humidity	10 to 90% relative humidity (non-condensing)
Certifications	FCC Class A, CE

Black Box Tech Support: FREE! Live. 24/7.



Great tech support is just 30 seconds away at 724-746-5500 or blackbox.com.



About Black Box

Black Box provides an extensive range of networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches all supported by free, live 24/7 Tech support available in 30 seconds or less.